

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Big Sky Woodcrafters

Montana Manufacturing Extension Center

Big Sky Woodcrafters Cuts Throughput with CNC; increases Productivity with Lean

Client Profile:

Big Sky Woodcrafters (BSW) owners, Kathy and Gerald Barta, purchased this secondary wood products business in Laurel, Montana, ten years ago, operating it in conjunction with their brick manufacturing business. Because the brick business was seasonal, they began pouring more effort into the plaque, showcase, and custom hardwood products business, which had been serving a limited, local market under previous owners. They eventually sold the brick business. BSW serves a wholesale market nationwide with 80 percent of its work being custom items beyond what is featured in the catalog and website. The main customers for its hardwood products are awards/engraving stores, bronze foundries and other wholesalers plus high school associations, and corporate accounts. BSW also works with retail marketing companies providing product display cases. BSW employs nine people in addition to the owners.

Situation:

Sales grow annually, but BSW must compete with companies using migrant labor, not necessarily located in Mexico, and it struggles with the continually increased cost of hardwoods as bunkers of it go overseas. The business is directly affected by overseas imports, as well. Competitive pressures, increasing cost of materials, and a desire to expand into new markets has pushed BSW's owners to explore efficiencies and better ways to do business by reaching out for assistance from the Montana Manufacturing Extension Center (MMEC), a NIST MEP network affiliate.

Solution:

The beginnings of BSW's LEAN journey started with this simple question, "What happens if you turn this saw around?" posed by the area MMEC Field Engineer as he did a walk through of the plant. The essence of the question was this: What will it do for the footprint (the amount of workspace taken up by the machine and its operating space as it relates to flow through the plant) needed by this saw? The owners immediately visualized that they would no longer have to walk all the way around it to get to other equipment. When they moved it, the footprint did change, productivity increased, and the firm really began getting organized and adopting other Lean techniques. Since then the owners have made many changes in the 10,000 square foot shop. They expanded into what had been their brick manufacturing space and, with MMEC's input, were able to avoid knocking down a wall by thinking through the process flow. They were able to better meet the challenges of working within all the city codes while expanding as needed and say they wouldn't remodel again without MMEC. Empowered by Lean to cut wastes and armed with specific time/cost information from additional MMEC assistance, the Bartas began exploring a more expensive piece of equipment, a new American-made CNC router. MMEC helped with an equipment justification for the CNC that enabled the owners to show the lender a solid picture of the value of the router to the business based on past sales, sell price, costs, and increased profit on pieces by using CNC. With that data, BSW was able to land financing for the CNC router, the latest piece of equipment helping it be more competitive and profitable. It was one of a

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number of positive outcomes after BSW's owners began using MEP business assistance available to companies. As of early June 2005 the new router had been operational only a few weeks but was running customer pieces after the first week. It has increased productivity four-fold, producing 16 pieces with clean, consistent cuts in less than an hour including drawing time. Previously each piece took 15-20 minutes plus drawing time. The owners expect the router to replace two full pieces of equipment--the copy shaper and band--as they explore and become proficient with its expanded capabilities. The owners expect the machine to pay for itself within three years allowing them to pursue new product niches. Improved productivity with employees through Lean initiatives enabled BSW to purchase equipment that saves time. With MMEC help and improved tooling, productivity has increased 50 percent.

Results:

- * Four-fold increase in throughput and less drawing time.
- * Increased productivity by 50 percent.
- * Secured financing for CNC router.
- * Achieved a more competitive and profitable position.

Testimonial:

"The MMEC Field Engineer is like a mentor. He's the reason why our business turned around, sales, productivity, everything. He understands our business."

Gerald Barta, Owner